

IMPORTANT NOTICE: A printed copy of this document may not be the version currently in effect. The current official version is available via the Sandia National Laboratories Nuclear Waste Management Online Documents web site.

**SANDIA NATIONAL LABORATORIES
WASTE ISOLATION PILOT PLANT
TECHNICAL OPERATING PROCEDURE (TOP)
TOP 570**

MANAGING DESIGN AND ANALYSIS CONTRACTS

Revision 0

Effective Date: 11/30/98

Approved for Issuance: <u>Original signed by R.R. Richards for D.S. Coffey</u>	<u>11/23/98</u>
SNL QA Reviewer	Date

1.0 PURPOSE

The purpose of this procedure is to detail the methods for managing and documenting a design or analysis task performed under contract to Sandia National Laboratories (SNL) for the Waste Isolation Pilot Plant (WIPP) Project.

2.0 RESPONSIBILITIES

This procedure applies to design investigations and analysis activities that are performed under an existing or future contract to SNL for the WIPP Project and include design investigations and activities that are used to support the engineered barrier system or determination of compliance or recertification for waste isolation.

3.0 DEFINITIONS

Contractor (Supplier) - A firm, university, company, or individual that has agreed to provide products or services to SNL WIPP or designated recipient.

Department Manager (DM) – The SNL manager responsible for the appropriate use of the SNL WIPP Project resources.

Design Investigations – Design or design-related tasks to be completed for SNL WIPP that include efforts such as trade-off studies, preclosure safety feasibility, optimization, operating, closure, decommissioning, and cost and schedule investigations; design development such as engineered structures, systems or components for waste isolation; and other such tasks. Design investigations include the actions necessary to develop specific designs.

Principal Investigator (PI) – The SNL WIPP staff member responsible for completion of a particular investigation or design.

Sandia Contract Representative (SCR) - Usually referred to as the **Buyer**, the SCR is the procurement professional who acts to fulfill the requester's requirement. The SCR, often working in consultation with the requester, obtains quotations, negotiates and awards contracts, and administers contracts after awards have been made.

Sandia Delegated Representative (SDR) - A Sandia employee identified in the contract and authorized by the contract to administer certain aspects of the contract.

Statement of Work (SOW) - A part of the contract that describes the contractor's specific responsibility associated with the contract. The SOW describes activities, summarize technical requirements and objectives, designates applicable QA requirements and identifies deliverables.

Task Memorandum TM - The document that initiates, guides, and documents design or analysis related efforts. The TM should define the required task (scope of work) including inputs, organization and method of reporting final results and deliverables. Specifications, references or reference designs, system, operational, or safety requirements or other input information to be used, should be specified and should be used and adhered to by personnel working on the task.

Continue on next page

3.0 DEFINITIONS, Continued

Task Notice to Proceed (TNTP) - Document signed by the SDR and the Contractor in which (1) SNL authorizes the contractor to proceed with the task defined in the TM, and (2) the contractor agrees to assign qualified personnel to the task and to complete the task on time and within budget.

DM - Department Manager

DOE - Department of Energy

PI - Principal Investigator

QA - Quality Assurance

QAP - Quality Assurance Procedure

SCR - Sandia Contractor Representative

SDR - Sandia Delegated Representative

SNL - Sandia National Laboratories

SOW - Statement of Work

SWCF - SNL WIPP Central Files

TM - Task Memorandum

TNTP - Task Notice to Proceed

WIPP - Waste Isolation Pilot Plant

4.0 TECHNICAL, REGULATORY, AND QA PROGRAM REQUIREMENTS

There are no technical, regulatory or upper-tier QA requirements for managing design and analysis contracts.

Continue on next page

5.0 SAFETY

Safety requirements, if any, will be identified in the contract. Meeting the terms and conditions of the contract relative to contractor employee and public safety is a primary responsibility of the Contractor. The SDR or PI or both shall monitor the contractor's on-site activities at Sandia work locations and at the WIPP to assure that the contractor is informed of and has been adequately trained to comply with applicable safety requirements. The SDR will use the Sandia Training Decision Guide provided in the Contractor Training Instructional Aid manual (November 1997) to determine if corporate ES&H training is required. If corporate ES&H training is required, it must be completed prior to Sandia allowing on-site work. However, the contractor shall be solely responsible for safety at all other work locations unless otherwise directed by the contract. The SDR shall assure that the contractor observes all "stop-work-orders" and other on-site related safety directives issued by individuals authorized to do so by Sandia, the WIPP operating contractor, or the Department of Energy.

6.0 PROCEDURE

6.1 Requesting and Reviewing Contractor Support

Responsible Individual(s)	Step	Procedure
PI or Designee	1	Shall prepare a Design/Analysis Task Memorandum (TM) (see Appendix A for format and scope of content).
	2	Submit the TM to the Sandia Delegated Representative (SDR) and DM for review and approval. Coordinate the review and approval process.
	3	Determine if the QA requirements for the task differ from the requirements stated in the SOW, for the applicable contract. If some or all of the QA requirements identified in the contract are not applicable to the task, these QA requirements shall be identified as "not applicable" in the TM. If QA requirements are identified as "not applicable" in the TM, the TM shall be reviewed by a member of the QA department before it is transmitted to the Contractor. If QA requirements are required that exceed the requirements stated in the contract, the contract shall be amended to include the additional requirements before the TM is transmitted to the contractor.

Continue on next page

6.0 PROCEDURE, Continued

Note: Failure to specify all applicable QA requirements up front may effect the cost estimate. It is the Principal Investigator's (PI's) responsibility to ensure that the applicable QA requirements are fully identified and clearly explained in the contract SOW.

In Cost-Plus-Fixed Fee, Time-and-Materials, and Labor-Hour contracts, additional QA requirements may be explicitly included in a TM as sub-tasks. For example, calibration of equipment using a primary standard might be an allowable sub-task without modification of the contract.

- | | | |
|------------|---|---|
| SDR | 4 | Transmit a copy of the TM to the Contractor. |
| Contractor | 5 | Reviews TM and either: <ul style="list-style-type: none"> 1) accepts the TM as is, or 2) proposes modifications to the TM and informs SNL, or 3) rejects the TM. |
| SDR | 6 | Shall inform the PI of the contractor's decision. |
-

6.2 Authorizing and Accepting a Task

- | Responsible Individual(s) | Step | Procedure |
|---------------------------|------|--|
| SDR | 1 | Shall: <ul style="list-style-type: none"> 1) resolve any proposed modifications with the SNL PI and contractor and resubmit a new TM to the contractor, or 2) withdraw the request for contractor support. <p>When the SDR either accepts or withdraws the TM, the review process is complete.</p> |
| | 2 | Shall authorize the contractor to initiate work either in writing or verbally. If a verbal authorization is used, a written authorization should be in place within a reasonable time after contractor begins work. |
| | 3 | Complete and transmit the Design/Analysis Task Notice to Proceed (TNTP) (see Appendix B) to the contractor. |
-

Continue on next page

6.0 PROCEDURE, Continued

Contractor	4	Shall accept the task either in writing or verbally. If a verbal acceptance is used, written acceptance, signified by the contractor completing the TNTP should be in place within a reasonable time after contractor's receipt of the TNTP.
------------	---	--

6.3 Task Completion and Acceptance

Responsible Individual(s)	Step	Procedure
Contractor	1	Shall perform the design or analysis as specified in the TM. Note: The Contractor or PI may submit revisions to the TM and process such revisions in the same method as the original TM.
	2	Transmit the completed deliverables to the SDR.
SDR	3	Determine, QAP 6-2, deliverables require a review in accordance with Quality Assurance (QA) Procedure (QAP) 3-2 or alternative process, or accepts deliverables without a review. If QAP 3-2 is used, the SDR will coordinate the review and comment resolution process.
	4	Ensure that the deliverables are revised per comment resolution, if a QAP 3-2 or QAP 6-2 review is used.
	5	Prepare and issue a closing memo, instructing the contractor to terminate all design or analysis activities for the task.
	6	Assemble a QA record package, including the TM, transmittal documentation, review documentation, the deliverable, and closing memorandum.
	7	Submit QA package to the SNL WIPP Central Files (SWCF) in accordance with Section 7.0 of this procedure.

7.0 QA RECORDS

QA records and record packages, including corrections and changes thereto, generated as a result of implementing this QAP shall be prepared and submitted to the SWCF in accordance with QAP 17-1.

Continue on next page

7.0 QA RECORDS, Continued

The QA records package shall include:

- See Appendix A: "Task Deliverables"
-

8.0 REFERENCES

QAP 3-2	Verification of Design Adequacy
QAP 4-1	WIPP Supplier Quality Assurance Program Requirements
QAP 6-2	Preparing, Reviewing, and Approving Technical Information Documents
QAP 17-1	WIPP Quality Assurance Records Source Requirements

9.0 FORMS

Recommended formats for the Design/Analysis Task Memorandum and the Design/Analysis Task Notice to Proceed are presented in Appendices A and B respectively. There are no formal Sandia WIPP QA forms associated with this TOP.

10.0 APPENDICES

Appendix A:	Design/Analysis Task Memorandum Format
Appendix B:	Design/Analysis Task Notice to Proceed Format

APPENDIX A**Design/Analysis Task Memorandum Format**

Task Title: (enter task title)	Contractor: (enter contractor's name)	Case No.: (enter case number)
Task Revision: (enter revision number and date)	Contract No: (enter SNL contract ID number)	WBS No.: (enter WBS number)

Task Description:

(enter a detailed description of task to be performed; this information must be provided)

Design Inputs:

(enter definition of task inputs and parameters, if none enter none)

Task Deliverables:

(enter a list of task deliverables: reports, drawings, analysis, etc. along with due dates, if none enter none; this information must be provided.

QA Records-Two copies of the QA Records package, described below, shall be prepared by the contractor and submitted to Sandia upon completion of the task.

- I. **Organization:** This task shall have a complete and separate task file. the QA Records should provide documentation of the task and any sub-tasks. The record should be organized such that a reviewer, without assistance from a task participant, can understand the design or analysis process used and the results obtained.
- II. **Content:** The task file should contain, as applicable the following:
 - Task Memorandum;
 - Task Notice to Proceed Form;
 - revisions to the task (if any);
 - task-related correspondence;
 - task-related meeting minutes;
 - definition of design or analysis inputs (criteria, parameter, requirements, etc.) and their sources;

- results of literature searches, other applicable background data, and references;
- identification of assumptions;
- identification of computational methods (1) for computer calculations, include the basis (or reference thereto) supporting applicable of the computer program to the specific physical problem, computer program name and revision identification, computer type, inputs, outputs, and evidence of or reference to computer program verification) for the other calculations include the basis (or reference thereto) supporting application of the calculations to the specific physical problem, inputs, outputs, and evidence of verification of the calculations;
- task deliverables;
- review records for task deliverables (including comments, proposed comment resolutions, and final comment resolutions);
- documentation that the personnel assigned to the task were both trained and qualified to perform the assigned work; and
- closing memorandum.
- additional information my be added as necessary.

III. Custody and Review: QA Records shall be maintained by the contractor until a task is complete. Upon completion of the task, the records shall be reviewed for completeness by the contractor, and then transferred to the Sandia Delegated Representative (SDR) for acceptance.

Other:

(enter any other information or conditions related to the task, if none enter none)

Prepared By: _____
(type or print PI's name)-Principal Investigator

Date _____

Approved: _____
(type or print SDR's name)-Sandia Delegated Representative

Date _____

Approved: _____
(type or print DM's name)-Department Manager

Date _____

APPENDIX B**Design/Analysis Task Notice To Proceed Format**

Task Title: <i>(enter task title)</i>	Contractor: <i>(enter contractor's name)</i>	Case No.: <i>(enter case number)</i>
Task Revision: <i>(enter revision number and date)</i>	Contract No: <i>(enter SNL contract ID number)</i>	WBS No.: <i>(enter WBS number)</i>

Task Authorization:

The SDR's signature on this memorandum authorizes the contractor to proceed with the design/analysis task described in the attached Design/Analysis Task Memorandum.

Approved: _____ Date _____
(type or print SDR's name)-Sandia Delegated
Representative

Task Acceptance:

The contractor representative's signature on this memorandum confirms acceptance of the design/analysis task described in the attached Design/Analysis Task Memorandum. Accepting this task indicates a commitment, on the part of the contractor, to assign qualified personnel and to complete the task on time and within the agreed upon budget.

Approved: _____ Date _____
(type or print Contractor Representative's name)-
Contractor Representative